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Farm Mobilization **FACT SHEET**



GOOD FARMING PRACTICES *Key to higher yields*

Scientific farming methods can make a big contribution to defense mobilization in 1952. Farmers are asked to produce at least 6 percent more than in 1951. But at best, we can count on getting only 2 percent of this increase by using idle cropland, double-cropping, and bringing new land into cultivation.

The rest of the increase--the biggest part--must come off today's production line. If farmers are to produce as much food and fiber as this country needs to be strong and defend itself, they must produce bigger harvests on the land now being farmed and save more of the crops they grow.

The Job - What Needs to be Done

The most urgent crop goals to be met this year are for feed grains, forage crops, and cotton. For corn, the goal is 15 percent more output on 6 percent more acreage; grain sorghums, 29 percent on 18 percent more acreage; barley, 14 percent more on 19 percent more acreage; cotton, 5 percent more on the same acreage; less hay in the Corn Belt, more in the Southeast.

Feed grains and forage crops are needed to feed the near-record numbers of livestock now on farms to boost the output of milk, meat, and eggs. Feed grain reserves are at dangerously low levels. As for cotton, an important defense fiber, our reserves are now the lowest in 25 years.

Needed - Good Farming Methods on More Farms

Only a small percentage of the Nation's farmers are now applying the best possible combination of farming practices on their land. Farmers can achieve the goals by applying these practices more widely--using improved seed varieties; more fertilizer in more efficient ways; better insect, disease, and weed control methods; more machinery; and better land and water-use practices in general.

Farmers have already proved what they can do with better production methods. Since the late 1930's, they have increased their output 40 percent on virtually the same amount of cropland. One of the many ways--wide use of hybrid corn which produces yields 20 to 30 percent higher than old-fashioned open-pollinated corn.

Some of the practices which can help farmers boost production still more in 1952 are presented in this fact sheet. Best advice on practices best suited to each locality comes in four words--SEE YOUR COUNTY AGENT.

Select Good Seed - Choose Adapted Varieties

Good seed can produce crops that resist disease and give higher yields. Farmers can choose from new seed varieties with these qualities especially adapted for a particular soil and climate. It is also worth the difference in price to buy seed that has been certified for germination and purity.

Eight new superior corn hybrids have been developed for the South, where hybrid corn is still not widely used. These give considerably higher yields, stand more erect than older hybrids grown in the South, and after harvest are more resistant to weevils. Dixie 82, released for commercial production just last year, has good roots and stalks and has outyielded N.C. 27 in the Carolinas, Georgia, and Tennessee. Ga. 281, another new hybrid, yields considerably better, is more resistant to lodging than Fla. W-1, and is about equal in weevil resistance. Ga. 281 is adapted to lower Mississippi and Alabama through Florida and the Georgia coastal plain.

Now available are 20 improved varieties of grain sorghums adapted for the length of growing season and resistant to milo disease. Some will also resist drought and chinch bugs and grow short enough for easy harvesting with a combine.

There are at least 30 superior varieties of barley which are adapted to different areas of the country, produce high yields, have stiff straw, resist stem rust, and contain a goodly amount of protein.

More than 15 improved varieties of cotton are now available to fit the community, purpose, or growing conditions through the Cotton Belt.

For best pasture and rangeland, a combination of 2 to 5 grasses and legumes will provide lush and high-producing grassland. Choice of mixture, however, depends on climate, soil type, and the way pasture will be used.

Give the Crop a Good Start

Farmers generally get higher yields by tilling the ground at the right time, keeping weeds under control, planting enough seed at the right depth, and seeding at the best time to get a good stand, and, for some crops, to lessen losses from insects and diseases.

Close stands of the new corn hybrids for the South are most productive. Best results come from planting 9 to 14 pounds of seed per acre with spacing about 15 inches apart in 42-inch rows. For sorghums to be combined, plant 5 to 8 pounds per acre in close drills.

In cotton, hill dropping or drilling to a stand helps cut labor and production costs. In using locally-produced seed, it pays to have it mechanically delinted, since linters are bringing a good price. Where cotton planting is mechanized, it might pay to use acid delinted seed. It can be hill dropped with a corn planter and germinates quicker in good weather.

The pasture seedbed should be firm, well-prepared, free of weeds. Grass and legume mixtures should be seeded uniformly, $\frac{1}{4}$ -to $\frac{1}{2}$ -inch deep for the best germination and stand. Spring is generally the best time to plant in the North; late summer or early fall in the middle latitudes; and fall in the South.

Make it Grow with Fertilizer

Correct use of fertilizer, along with other good farming practices, can perform wonders in increasing crop yields. Although the supply of fertilizer this year will be a little larger than last, the strong demand for it will exceed the supply. Phosphates, especially, may be somewhat tight.

On corn, nitrogen content of fertilizers could be profitably increased. On the average, every two pounds of nitrogen will up corn yields one bushel. In the South, the yield of adapted corn hybrids is boosted substantially by applying 300 pounds of 12-8-8, 500 pounds of 8-8-8 or 600 pounds of 6-8-8 mixed fertilizer, and later adding 60 to 80 pounds of nitrogen as side dressing.

Many cotton soils take from 400 to 600 pounds per acre of a complete fertilizer such as 5-10-5 or 6-8-4. Where rust in cotton plants is a problem, use a fertilizer with a higher content of potash such as 3-9-12 or 5-10-10; then at chopping time sidedress with 100 pounds of ammonium sulfate or nitrate of soda.

Fertilizer is important to pastures before seeding and after grasslands are established. A starter fertilizer containing 20 to 30 pounds of nitrogen per acre is often helpful to new pasture seedings.

Control Pests - They Reduce Yields

The total damage pests do to crops cannot be measured accurately, but it is conservative to say that insects, plant diseases, and weeds reduce crop output by at least 10 percent each year. Best advice to farmers is to use pest controls with caution, following directions carefully.

As for insects, the European corn borer alone is estimated to have reduced the 1949 corn crop by some 314 million bushels--or nearly 10 percent. Again this year, Government entomologists will try to keep farmers informed in advance on the development of the corn borer menace so that insecticides can be readied.

The boll weevil, the insect which causes the most widespread damage to U. S. cotton, is estimated to have cut the 1950 cotton crop by nearly 23 percent despite the use of insecticides. The most important insecticides now used on cotton are calcium arsenate, sulfur, benzene hexachloride, toxaphene, DDT, aldrin, dieldrin, chlordane, and nicotine.

Diseases take a heavy toll on various crops: about 7 percent on barley, 15 percent on corn, 24 on oats, and 15 on cotton. Best control over diseases that attack these strategic crops is to plant resistant varieties and follow other practices as locally recommended.

Proper use of new cultural and chemical methods for controlling weeds can add many bushels and bales to this year's crop. In small grains 2,4-D gives good control of annual broadleaf weeds. In cotton, annual broadleaf and grassy weeds may be controlled with pre-emergence treatments of dinitro compounds, treatments with herbicidal oils after the plants have come up, and with flaming. Chemical weed control is a relatively new development and should be used cautiously.

Harvest to Prevent Waste and Preserve Quality

Harvesting grain crops at exactly the right stage of maturity will bring the largest yields from acreage planted. Sorghum that is to be combined, for example, should be dead ripe and should contain not more than 14 percent moisture to prevent it from spoiling.

Cotton is ready for harvest sooner and is also safer from boll weevils, late aphids, and certain other cotton insects when it is chemically defoliated before picking time. Chemical defoliants are sold under such trade names as Aero, Cyanamid, Chipman's Defoliant, Ortho C-1 Defoliant, and Niagarathal DF Spray. They are generally applied as a dust in the southeastern States and as a spray in the drier cotton areas. Don't apply until plants are mature--when bolls of the top crop are at least 30 days old. Apply when there is little or no wind and when humidity, soil moisture, and day and night temperatures are high.

Forage crops have highest value as livestock feed when made into silage or barn-dried for hay. Field curing, even under the best of conditions, causes loss of both dry matter and feed value. But in field curing, try to choose a time when the weatherman promises two or more days of clear weather. To get the best combination of yield and quality, grasses and small grains should be cut at the early heading stage; alfalfa when at 1/10 to 1/4 bloom; clover at the half-bloom stage; and lespedeza and soybeans when the first seed pods are filled.

Protect Crops from Storage Losses

If all grain storage losses could be prevented this year, enough grain would be saved to meet 1952 production goals without increasing production. Biggest storage enemies are rats, insects, over-heating, and mold.

Storage losses due to insects can best be prevented by thoroughly cleaning bins before they are refilled. Walls and floors of wooden bins, and the door-frames of steel bins should be treated with residual sprays such as DDT, TDE, or methoxychlor. If rats establish a beachhead, they can usually be cleaned out with fumigants, traps, or the new drug called Warfarin.

Store grain as dry as possible for safety from both mold and insects. New and better grain driers, using both heated and unheated air, have been developed in recent years. Farm-stored grain should be fumigated within 2 weeks after it is placed in the bin in the South and 6 weeks in the Corn Belt. Fumigating again later may be necessary in the South.

Better Farming is Everyone's Concern

.....since the right combination of good agricultural practices can produce the increases to answer mobilization needs. Farmers naturally look first to the county agent for more farming know-how. But other persons and groups are needed to help in the task of getting useful information to those on the farm production line. Some of these are: suppliers of seed, feed, fertilizer, machinery, repair parts, pesticides, and other production facilities. The farm and trade press; weekly newspapers; radio and television stations; and farm, trade, church, and civic organizations who reach farmers regularly in every part of the Nation can also help.